

## Product datasheet for **RG221350**

### WHSC1 (NM\_133330) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | WHSC1 (NM_133330) Human Tagged ORF Clone                                    |
| Tag:                      | TurboGFP  |
| Symbol:                   | WHSC1   |
| Synonyms:                 | KMT3F; KMT3G; MMSET; REIIBP; TRX5; WHS; WHSC1                               |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-AC-GFP (PS100010)   |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| ORF Nucleotide Sequence:  | >RG221350 representing NM_133330<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAATTTAGCATCAAGCAGAGTCCCCTTTCTGTTCAGAGTGTTGTAAGTGCATAAAGATGAAGCAGG  
CACCAGAAATCCTCGGCAGTGCCAACGGGAAGACTCCGAGCTGCGAGGTGAACCGCAGTGTTCTGTGTT  
CCTCAGCAAAGCCAGCTCTCCAGTAGCCTGCAGGAGGGGTCATGCAGAAGTTAACGGCCACGACGCC  
CTGCCCTTATTCCAGCCGACAAGCTGAAAGATCTTACTTCCCGGTGTTAATGGAGAACCCGGCCAC  
ACGATGCCAAACTGCGTTTTGAGTCCCAGGAAATGAAAGGATTGGACACCCCTAACACTACCCCTAT  
CAAAAATGGCTCTCCAGAAATTAAGCTGAAAATACCAAAACATACATGAATGGGAAGCCTCTTTGAA  
TCTTCCATTTGTGGTGACAGTGCTGCTGATGTGTCTCAGTCAGAAGAAAATGGACAAAACCCAGAAAACA  
AGGCGAGAAGGAACAGGAAGAGGAGCATAAAAATGACTCCTTGCTGGAGCAGGGCCTTGTCGAAGCAGC  
TCTTGTGTCTAAGATCTCAAGTCCTCAGATAAAAAGATTCCAGCTAAGAAAGAGTCTTGTCCTCAACACT  
GGAAGAGACAAAGACCACCTGTTGAAATACAACGTTGGTGATTTGGTGTGGTCCAAGTGTGGGTTACC  
CTTGGTGGCCTTGCATGGTTTCTGCAGATCCACTCCTTACAGCTATACCAAACTTAAAGTGCAGAAAA  
GAGTGCACGCCAGTATCACGTACAGTCTTTGGTGACGCCCCAGAAAGAGCTTGGATATTTGAGAAGAGC  
CTCGTAGCTTTTGAAGGAGAAGGACAGTTTAAAAATTATGCCAGGAAAGTGCCAAGCAGGCCACCCACGA  
AAGCTGAGAAAAATTAAGCTATTGAAACCAATTCAGGAAATGAGGGCCAGTGGGAAATGGGCATTGT  
TCAAGCAGAAGAAGCTGCAAGCATGTGAGTGGAGGAGCGGAAAGCCAAGTTCACCTTTCTCTATGTGGG  
GACCAGCTTCTCAACCCTCAAGTAGCCAAGGAGGCTGGCATTGCTGCAGAGTCTTTGGGAGAAATGG  
CAGAATCCTCAGGAGTCAAGTGAAGAAGCTGCTGAAAACCCCAAGTCTGTGAGAGAAGAGTGCATTCCCAT  
GAAGAGAAGGCGGAGGGCCAACTGTGTAGCTCTGCAGAGACCTGGAGAGTACCCCGACATAGGGAAG  
AGTACTCTCAAAGACGGCAGAGGCTGACCCAGAAAGAGGAGTAGGGTCTCTCTGGGAGGAAGAAGA  
CCACAGTCTCCATGCCACGAAGCAGGAAGGAGATGCAGCATCCAGTTTTTGGTCTTGTCAAAAACA  
CAGGGATGAGGTGTAGCTGAGCACCCAGATGCTCAGGTGAGGAGATTGAAGAGCTGCTCAGGTACAG



[View online »](#)

TGGAGTCTGCTGAGTGAGAAGCAGAGAGCACGCTACAACACCAAGTTTGCCTGGTGGCCCTGTCCAGG  
CTGAAGAAGACTCTGGTAATGTAATGGGAAAAAAGAAACCACACAAAGAGGATACAGGACCCTACAGA  
AGATGCTGAAGCTGAGGACACACCCAGGAAAAGACTCAGGACGGACAAGCACAGTCTTCGGAAGAGAGAC  
ACAATCACTGACAAAACGGCCAGAACAAGCTCTTACAAGGCCATGGAGGCAGCCTCCTCGCTCAAGAGCC  
AGGCAGCAACGAAAAATCTGTCTGATGCATGTAACCCTGAAGAAGCGAAATCGGGCTCCACGGCAGC  
ATCTTCAGCTCTTGGGTTTAGCAAAAGTTCATCTCCTTCTGCATCCTAACTGAGAATGAGGTCTCGGAC  
AGCCCCGGAGACGAGCCCTCGGAGTCCCCATACGAAAGTGCAGACGAAACACAACTGAAGTATCTGTCT  
CATCCAAAAAGTCTGAGCGAGGAGTACTGCCAAAAAGGAGTATGTGTGCCAGCTGTGTGAGAAGCCGGG  
CAGCCTCCTGCTCTGTGAAGGACCTGTGCGGAGCTTCCACCTCGCCTGCCTGGGCTTCCCGGAGG  
CCAGAAGGGAGGTTACCTGCAGCGAGTGTGCCTCAGGGATTCACTCATGTTTCGTGTGTAAGAGAGCA  
AGACAGATGTTAAGCGTGTGTGGTAACTCAGTGTGGAAAATTTTACCATGAGGCTTGTGTGAAAAATA  
CCCTCTGACTGTATTTGAGAGCCGAGGTTCCGCTGCCCCCTCCACAGCTGTGTGAGCTGCCATGCTTCC  
AACCTTCAAACCAAGGCCGTCAAAGGTAATGATGCGGTGTGTCCGCTGCCCGTTGCCTATCACA  
GCGGGGATGCTTGTCTGGCAGCAGGATGCTCAGTATCGCCTCCAACAGCATCATCTGCACTGCCACTT  
CACTGCTCGGAAGGGGAAGCGACACCACGCCACGTCAACGTGAGCTGGTCTTCGTGTGTCTCAAAGGG  
GGGAGCCTTCTGTGCTGTGAGTCTGCCAGCGGCCTTCCACCCTGACTGCCTGAACATCGAGATGCCTG  
ACGGCAGCTGGTCTGCAATGACTGCAGGGCTGGGAAGAAGCTGCACTTCCAGGATATCATTGGGTGAA  
ACTTGGGAACTACAGATGGTGGCCGGCAGAAGTTTGCATCCAAAAATGTTCCCCCAAATATTCAGAAA  
ATGAAGCACGAGATTGGAGAATCCCTGTGTTTTCTTTGGGTCTAAAGATTATTACTGGACGCATCAGG  
CGCGAGTGTCCCGTACATGGAGGGGACCGGGGACCGCCTACCAGGGGGTACAGGGATCGGAAGAGT  
CTTCAAAAACGCACTGCAAGAAGCTGAAGCTCGTTTTCTGTGAAATTAAGCTTCAGAGGGAAGCCCGAAA  
ACACAGGAGAGCGAGCGCAAGCCCCACCATAACAAGCACATCAAGGTGAATAAGCCTTACGGGAAAGTCC  
AGATCTACACAGCGGATATTTAGAAAATCCCTAAGTGAAGTCAAGCCACAGATGAGAATCCTTGTGG  
CTTTGATTCGGAGTGTCTGAACAGGATGCTGATGTTTGTGAGTGCCACCCGAGGTGTGTCCCGGGGCGAG  
TTCTGCCAGAACCAGTGCTTACCAAGCGCCAGTACCCAGAGACCAAGATCATCAAGACAGATGGCAAAG  
GGTGGGGCTGTGCGCAAGAGGGACATCAGAAAAGGGAGAATTTGTTAACGAGTACGTTGGGGAGCTGAT  
CGACGAGGAGGAGTGCATGGCGAGAATCAAGCACGCACACGAGAACGACATCACCCACTTCTACATGCTC  
ACTATAGACAAGGACCGTATAATAGACGCTGGCCCCAAAGGAACTACTCTCGATTTATGAATCACAGCT  
GCCAGCCCACTGTGAGACCCTCAAGTGGACAGTGAATGGGGACACTCGTGTGGCCTGTTTCCCGTCTG  
TGACATTCCTGCAGGGACGGAGCTGACTTTTAACTACAACCTCGATTGTCTGGGCAATGAAAAACGGTC  
TGCCGGTGTGGAGCCTCAATTGCAGTGGATTCTCGGGATAGACCAAAGACCTCGACGACCCTTTCAT  
CAGAGGAAAAGGGCAAAAAGACCAAGAAGAAAACGAGGCGGCGCAGAGCAAAAAGGGGAAGGGAAGGGCA  
GTCAGAGGACGAGTGCTTCCGCTGCGGTGATGGCGGGCAGCTGGTGTGTGTGACCGCAAGTTCTGCACC  
AAGGCCTACCACCTGTCTGCTGGGCCTTGGCAAGCGGCCCTTCGGGAAGTGGGAATGTCTTGGCATC  
ATTGTGACGTGTGTGGCAAACCTTCGACTTCATTTTGCCACCTCTGCCCAATTCGTTCTGTAAGGAGCA  
CCAGGACGGGACAGCCTTCAGCTGCACCCCGGACGGGCGGTCTACTGCTGTGAGCATGACTTAGGGGCG  
GCATCGGTGAGAAGCACAAGACTGAGAAGCCCCCCCCAGAGCCAGGGAAGCCGAAGGGGAAGAGGGCGG  
GGCGGAGGGCTGGCGGAGATCACAGAGGGCAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG221350 representing NM\_133330  
 Red=Cloning site Green=Tags(s)

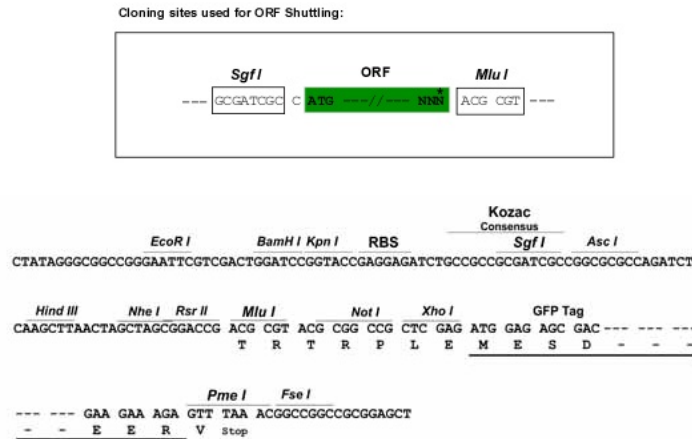
MEFSIKQSPLSVQSVVKCIKMKQAPEILGSANGKTPSCEVNRCSVFLSKAQLSSSLQEGVMQKFNHDA  
 LPFIPADKLDLTSRVFNGEPGAHDAKLRFESQEMKIGTPPNTTPIKNGSPEIKLKITKTYMNGKPLFE  
 SSICGDSAADVQSSEENGQKPENKARRNRKRSIKYDLSLEQGLVEALVSKISSPSDKKIPAKKESCNP  
 GRDKDHLLKYNVGDLVWSKVSGYPWWPCMVSAADPLLHSHYTKLKGQKKSARQYHVQFFGDAPERAWIFEKS  
 LVAFEGEQFQEKLCQESAKQAPTKAEKIKLLKPI SGKLRQWEMGIVQAEAAASMSVEERAKFTFLYVG  
 DQLHLNPQVAKEAGIAAESLGEMAESSGVSEAAENPKSVREECIPMKRRRRRAKLCSSAETLESHPDIGK  
 STPQKTAEADPRRGVGSPPGRKKT TVSMR SRK GDAASQFLVFCQKHRDEVVAEHPDASGEEIEELLRSQ  
 WLLSEKQRARYNTKFALVAPVQAEEDSGNVNGKRNHTKRIQDPTEDAE AEDTPRKLRTDKHSLRKR  
 TITDKTARTSSYKAMEAASSLSQAATKNLSDACKPLKRNRASTAASSALGFSKSSPSASLTENEVSD  
 SPGDEPSESPYESADETQTEVSVSSKSERGVTAKKEYVCQLCEKPGSLLLCEGPCCGAFHLACLGLSRR  
 PEGRFTCSECA SGIHSCFVCKESKTDVKRCVVTQCGKFYHEACVKKYPLTVFESRGRFCPLHSCVCHAS  
 NPSNPRPSKGMRCVRCVAYHSGDACLAAGCSVIASNSICTAHFTARKGKRHHAHVNVSWFCVCSKG  
 GLLCCESCPAAAFHPDCLNIEMPDGSWFCNDCRAGKLFHFQDI IWKLGNYRWWPAEVCHPKNVPPNIQK  
 MKHEIGEFVFFFGSKDYWTHQARVFPYMEGDRGSRYQGVIRGIRVFKNALQEAARFREIKLQREARE  
 TQESERKPPYKHIKVNKPYGKVIYTAADISEIPKCNCKPTDENPCGFDSECLNRMLMFECHPQVCPAGE  
 FCQNQCFTRQYPETKIKTDGKGWGLVAKRDIRKGEFVNEYVGLIDEEECMARIKHAHENDITHFYML  
 TIDKDIRIDAGPKGNYSRFMNHSCQPNCE TLKWTVNGDTRVGLFAVCDIPAGTELTFNYNLDCLGNEKTV  
 CRCGASNC SGFLGDRPKTSTL SSEEK GKTKKKTRRRRAKGEGRQSEDECFRCGDGGQLVLCRDKFCT  
 KAYHL SCLGLGRPF GKWECPWHHC DVC GKPSTSFCHLCPNSFC KEHQDGTAF SCTPDGRSYCCEHDLGA  
 ASVRSTKTEKPPPEPGPKPKGKRRRRRRGWRRVTEGK

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_133330

ORF Size: 4095 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_133330.2](#)

**RefSeq Size:** 7886 bp

**RefSeq ORF:** 4098 bp

**Locus ID:** 7468

**UniProt ID:** [O96028](#)

**Cytogenetics:** 4p16.3

**Domains:** PWWP, HMG, SET, PHD, PostSET, AWS

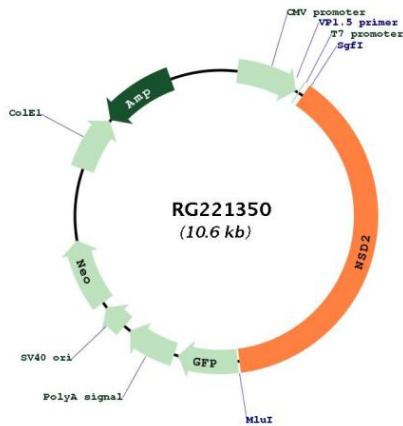
**Protein Families:** Druggable Genome, Transcription Factors

**Protein Pathways:** Lysine degradation

**Gene Summary:**

This gene encodes a protein that contains four domains present in other developmental proteins: a PWWP domain, an HMG box, a SET domain, and a PHD-type zinc finger. It is expressed ubiquitously in early development. Wolf-Hirschhorn syndrome (WHS) is a malformation syndrome associated with a hemizygous deletion of the distal short arm of chromosome 4. This gene maps to the 165 kb WHS critical region and has also been involved in the chromosomal translocation t(4;14)(p16.3;q32.3) in multiple myelomas. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms. Some transcript variants are nonsense-mediated mRNA (NMD) decay candidates, hence not represented as reference sequences. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG221350